



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,733	11/25/2003	Yoshinobu Hasuka	SIW-071	9807

959 7590 07/15/2005

LAHIVE & COCKFIELD, LLP.
28 STATE STREET
BOSTON, MA 02109

EXAMINER

FISCHMANN, BRYAN R

ART UNIT	PAPER NUMBER
----------	--------------

3618

DATE MAILED: 07/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/723,733

Applicant(s)

HASUKA ET AL.

Examiner

Bryan Fischmann

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>08-12-04</u> . | 6) <input type="checkbox"/> Other: _____ |

Acknowledgements

1. The Preliminary Amendment filed 11-25-2003 has been entered.

Specification

2. The specification is objected to because of the following:

A) The following recited phrases are unclear, awkwardly worded, and/or grammatically incorrect:

1) Instead of reciting "see for example, Patent document 1" in the first paragraph of page 2 and then "defining "Patent document 1 later on page 2, it would seem more direct and less confusing to just list the Japanese Patent Application in the first paragraph of page 2, as opposed to calling it "Patent document 1".

2) Line 6 of page 16 recites "upper limit #l" with the last character in this term being a "capital l", as opposed to being a "number 1". In contrast, Figure 4 uses the label #1, with the last character in this term being a "number 1", as opposed to being a "capital l". As best understood, both line 6 of page 16 and Figure 4 are referring to the same term.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign mentioned in the description:
C1. Correction is required.

Art Unit: 3618

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the power generation start device and the output voltage estimating device as recited in claim 1 must be shown or the features canceled from the claim. No new matter should be entered.

See the 112 2nd portion of this Office Action for further details.

Claim Objections

5. Claims 1 and 2 are objected to because of the following:

A) Claim 1 recites "A control apparatus for a fuel cell vehicle comprising... a propulsion motor... a fuel cell...".

Since the propulsion motor and fuel cell are components being controlled, as opposed to "control apparatus", the preamble of claim 1 seems inconsistent with the body of claim 1.

See also the preamble to claim 2.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claim 2 is rejected under 35 USC 101 due to the following:

Claim 6 positively recites "a driver". A "driver" is non-statutory subject matter.

To overcome this rejection, the Applicant should either not recite "a driver", or only recite a "driver" clearly within functional language.

Also, to be consistent with page 16 of the specification, it is believed that the recitation of "a driver" should instead be "a previous driver".

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicants regard as their invention.

A) Claim 1 recites "...a power generation start device...". It is considered unclear what portion of the control apparatus comprises the "a power generation start device" since this term does not correspond to nomenclature used in the specification, particularly nomenclature associated with a reference number and related to structure on the drawing figures.

As best understood, this term is associated with step S01 of Figure 2. However, from examination of the specification, it is not clear that there is a single "device" associated with the above term.

Note that Section 608.01 (o) and 2173.05(a) of the MPEP requires that nomenclature used in the claims be apparent from the specification, unless it is apparent from the prior art.

Note that Section 608.01(g) of the MPEP also recites "The description is a dictionary for the claims and should provide clear antecedent basis for all terms used in the claims".

Art Unit: 3618

B) Claim 1 recites "...an output voltage estimating device...". It is considered unclear what portion of the control apparatus comprises the "an output voltage estimating device" since this term does not correspond to nomenclature used in the specification, particularly nomenclature associated with a reference number and related to structure on the drawing figures.

As best understood, this term is associated with step S04 of Figure 2. However, from examination of the specification, it is not clear that there is a single "device" associated with the above term.

Allowable Subject Matter

10. Claim 1 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

11. Claim 2 would be allowable if rewritten to overcome the rejections under 35 U.S.C. 101 and 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Reasons for Allowance

12. The following is an Examiner's statement of reasons for allowance of independent claim 1:

Claim 1 recites the limitation of a fuel cell vehicle comprising; a propulsion motor, a fuel cell, a capacitor, a reactant gas supply, a power generation start device, a capacitor charging device, an output voltage estimating device which estimates an output voltage of said fuel cell, said voltage being reduced when a current is supplied to

said propulsion motor from said fuel cell; a terminal capacitor voltage detecting device which detects the terminal voltage of said, and a propulsion motor drive permitting device which permits power supply from said fuel cell to said propulsion motor when said capacitor terminal voltage is equal to or greater than an estimated output voltage estimated by said output voltage estimating device. This limitation, in combination with the other limitations of claim 1, were not found in the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A) Aoyagi, et al, Sugino, et al, Hasuka, et al, JP 2003-324801 – teach fuel cell systems in combination with a capacitor

B) Saeki, et al – related application by Applicant

14. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Bryan Fischmann whose telephone number is (571) 272-6694. The examiner can normally be reached on Monday through Friday from 8:30 to 5:00.

Art Unit: 3618

If attempts to reach the Examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis, can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 7-9-5
BRYAN FISCHMANN
PRIMARY EXAMINER